Sea Communitie

dinachronicle

news from the front lines of field biology and interaction design

2025, july 29 (sunday)

dinacon & sea communities updates

DINASAURS DESCEND ON LES

This week we welcomed the first Dinasaurs to Les Village. In attendance this week was Anna, Arky, Arya, Ashlin, Camila, Dinoj, Eka Made Merta, Eka Prawira, Garri, Gede Bayu, Gede Budi, Gede Rangga, Gede Wira, Grace, Seamus, Jan-Maarten, Mayowa, Olivia, Bharath, Jay, Jeddie, Julia, Ketut Agus, Ketut Widi, Ketut Widiasih, Komang Ngurah, Komang Winastra, Kyle, Liong Leong, Linda, Luci, Marie, Luh, Nyoman, Pippin, Putu Ari, Sumu, Tully, Lee, Andy, Sid, Paula.

MESSAGE FROM THE EDITOR:

There are few greater delights in this world than getting to assemble the ideas of so many amazing brains into one incredibly bizarre publication.

Keep being weird and smart.

On Sunday, June 22 2025 the first circuit of Dinacon 2025 was made by Ketut and Komang Wi and Komang! Together, they experimented with solar panel circuits to power a DC motor, an LED and a haptic motor. During their collaboration, they learned about constructing series and parallel circuits. Not only was this their first circuits personally, but it marks the beginning of Dinacon 2025!

GARBAGE JAM MAKES NEW MUSIC GENRE "DINACORE" BEFORE DISASTER

Before being confined to covid cabin, Sonified plastics hosted a spontaneous beach jam fest, creating a delightful set of garbage musical instruments. These days, you can follow them from their safe hide-away zones. But this hasn't stopped them from making things! The sonified plastics crew update log can be found here, feat. cool sounds.

MISSED CONNECTIONS

MB 4 Hot Wings

I left my light on all night for you? You fluttered by briefly, but never landed on my target. I just wanted to get a tasteful pic of that thorax, but I'm afraid I made it weird? Please come back, I'll be on every night at 7pm!

Snork seeking slug

I've been gazing in the coral and seeking you under rocks. Lemme see those nudi-branches.

Blower Needs Your Bubble Bush

We spent nights together twisting huffing and puffing but I could never seem to get you fully inflated. I think the chemistry is right, and I just wanna see that iridescent shimmer, right before you pop.

Dinasaur craving p r o j e c t (s ?)

I came to Dinacon so self assured about exactly what you would look like. But when i arrived, I was swept up by all the other hot single projects in the area. I just can't decide, maybe i have to have you all. Are you open to group projects?

LONGING FOR LOOKING: DESCRIBE ME A FISH

Sensory Robot

When you are looking at a cool tiny creature, how would you describe it to someone who couldn't see it? Does it make you feel nervous or excited, or marvel at the wonder of the world? What is it about the shapes, colors, and movement make it unique? If you had never seen a bug before, how do you explain what that means? Is it shiny, spiky, slimy, or smooth? Does it wriggle, hobble, sloth or crawl? Is it bright or spotted or small or tall? How do its limbs and fins work together, or is it too scared to move? Does it look back at you or pretend you don't exist? How do its fins join its body, or how do its antennae connect to its head? Does it have a head?

Describe me a fish, a bug, a tree, a leaf. Imagine I've never seen one before. Maybe I'm an alien, or maybe we're living in different worlds in the same place.

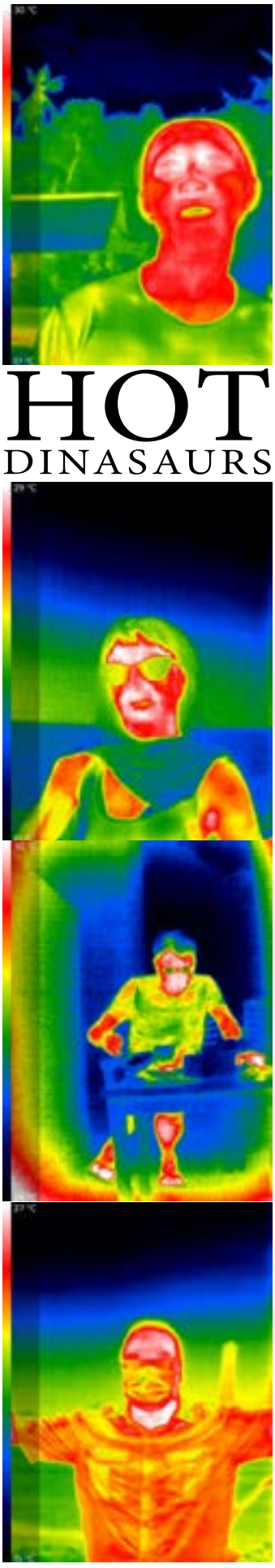
LETS GO FLY A KITE... UNDERWATER!

Jan-Maarten Luursema

What I'd like to do during my time at Dinacon is experiment with structures for underwater thermal mixing, basically use the energy of the tides to drive warm surface water through a pipe to the seafloor where it can mix with the colder water below. This should create islands of relatively cool water which should help reef polyps survive heatwaves. I also want to fly a kite underwater.

After a couple of days of collecting materials, diving, and other awesome activities such as a jungle walk to hang mothboxes with Andy, Grace and Arky which turned into a ethnoculinary event, and bat recording walks with Arky and Bri, today I got to really start working on the kite and the half tube for thermal mixing. I got great help from local men who know a lot about kite flying and helped me split bamboo and such.

I hope to finish the prototypes over the weekend and trial them in the ocean in the first half of next week. Such great times!



HOT DINASAURS

VISITING LES' SCHOOLS:

A LESSON IN HOLISTIC WASTE MANAGEMENT

Linda Hirsch

Indonesia is the second-largest plastic-polluting country in the world. Much of the waste ends up in the sea, harming the local coral reefs and the global climate at large. While this is bad, the Indonesian schools are pioneers in educating and fighting against the waste problem. I visited two schools, one elementary and one middle school, in Les, Bali, to learn about their educational approach related to waste management. Both schools keep several anaerobic composts on their grounds and follow a holistic approach in teaching the students about proper waste management. All stands in the theme of recycle, reduce, and reuse: The students are involved in the waste sorting, composting and recycling. Mr Justin, one of the teachers, showed me some of the artwork he does with the students. In parallel, the school uses the compost for gardening. The plants, such as the Kayu Sugi, are used in cooking and baking activities offered every Friday at the elementary school. Food waste from cooking and baking is given back into the waste management cycle. It was impressive to see how both schools mix practical activities with the theoretical knowledge discussed and taught in the classroom; a very holistic, local, and complementary approach to a global and immensely complex hazard.

Note: Thanks to the Middle school, SMP Negeri Satu Atap 1 Tejakula and the Elementary school SD Negeri 3 & 4 in Les and Pipin, my translator from the Sea Community.

Images by Jan Maarten Luursea

GOSH UBIQUITY DAY JULY 1

10 years ago GOSH made a goal that by 2025 Open Science Hardware would be ubiquitous! (and i am not letting that slip by!)

July 1 will mark halfway through this momentous year, and many GOSH (and future GOSH folks) will be together at Dinacon in Bali! And since dinacon is such a weird, long-format conference, it can have subconferences within it, and as such, we are just going to go ahead and declare a celebration of GOSH's successes and wins over the past 10 years!

So please, even if you aren't in Indonesia with us, set aside July 1 to rejoice in open science!

Dinacon - GOSH 2025
Here at Dinacon, we will host a day of discussing Open Science Hardware, the history of it, the different communities, have unconference workshops, build some mothboxes and other cool open science tools people can use right now!

MOTH BOX AT BLACK MOON

Andy Quitmeyer

One of Andy's long-term Dinacon projects this year is to do the first Indonesian trials of the Mothbox. The Mothbox (https://digital-naturalism-laboratories.github.io/Mothbox/) is an open-source, low cost insect monitoring device that can help people rapidly sample local biodiversity. We have been given two grants from Wildlabs.net to test and develop new, improved versions of this device. On one side, we will be testing the brand new Mothbox v5 PCBs, testing their electrical connections, and running them through their first paces to make sure they were manufactured correctly. Simultaneously we will continue using the previous v4 Mothboxes to collect as much data as possible and conduct user testing in novel environments.

Thus, every night at 7pm at Dinacon, a mothbox will light up, attract insects, and start capturing high resolution photos of neat bugs.not every night is equal however, and in the Mothboxing business we know that the days around a New Moon are extra special. Since the moon is dark (or a "Black Moon" as it's called here in Bali, we have fewer bright lights to compete with, and usually are able to sample higher amounts of insects.

So for the Black moon, Wilan and Wira took us up to the forest in the hills above Les to set up some Mothboxes to capture the lunar event. Grace, Jan, Arky, and me went up through the forest to find good Mothbox sites. I taught the crew how to set up a mothbox while Wilan and Wira gave us a naturalist tour of the area pointing out fun features of the plants along the way!

Eka P teaches a 3D printing and modeling workshop. We have a printer on site!

Ketut Widi of Sea Communities who never used computers before made this nametag in Tinkercad

Ketut Widi is now teaching others, Pipin and Komang Wi

THIS PLANET RULES

Written by Jay Bond, Photographed by Paula Te

I crammed my PADI training in right before Dinacon with the dream of seeing some coral with my own eyes. They made some cool shapes, right? Maybe there was a project in it. But at the back of my mind, I was prepared for disappointment. Surely the shots of gorgeous reefs we see in documentaries are selectively edited. Surely the claims of staggering diversity are at least a little hyperbolic. You hear stuff like, "It's like being on another planet!" But it couldn't possibly live up to the hype.

On Thursday, I got my first chance to find out in the waters off Les. So we hit the water and I started peering at some coral. Being a total scoob newb, my ability to keep neutrally buoyant is… limited. But I found that I could hang upside down and use my fins and breath in combination to maintain my position, eyeballs as near to the coral as I could get without running the risk of accidentally kicking fragile things.

I wanted to dwell there, examining each form in excruciating detail, staring into each crevice and divot for a chance of spotting a feeding polyp. But there was always another, wildly-different form nearby to check out. Smooth ones. Bumpy ones. Spiny ones. Ball-shaped, bowl-shaped, bottle-shaped ones. Bright yellow ones. Pink ones. Green ones. Ones that looked like termite mounds. Ones that looked like goblets. Ones that looked like mushrooms. Ones that looked like wobbly penne. Ones that started to make me a bit hungry. They often built off of each other, coral growing on coral across an entire ridge, creating a dizzying work of abstract impressionism you could stare at for hours. How can something as simple as a polyp — which is basically a little tube with tentacles on one end — create such endlessly-varying structures?

I don't know if it feels like being on another planet, but it renewed my sense of how much this planet rules.

ELECTROLYTES & ELECTRONS IN COVID CABIN

Ashlin Aronin

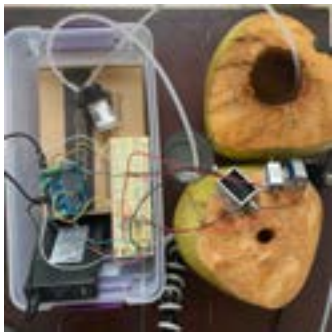
* Luci and I have been consuming our daily Pocari Sweat and recovering well

* Also, I created a first draft of a sound sculpture

* Two lil bonkers and a big bonker bonk on a coconut and a water glass while a pump moves water between the two, changing the pitch

* The rhythm is inspired by the interlocking kotekan of Balinese gamelan

* To-do: expand poly-rhythms and explore new resonant things to bonk. Any suggestions?



EAT PRAY BUG

camila a. morales

As a first timer in Bali, the island greets me like a dream. As I walk through its coastal landscape, I begin to see reflections of my own community in Far Rockaway, New York: stories of resilience, reverence for the ocean, and a shared yearning for place and meaning.

I arrived in Les Village with hopes of understanding how the community is preserving its ecology and how climate change has shaped their connection to the sea and land. But as I walk alongside locals, listening to their stories of plants, spirits, and hope, I find myself drawn into the spiritual threads that bind them so closely to the rhythms of their land.

Daily rituals spark laughter over good and bad spirits, gently opening space for our creative practices to intertwine. These shared moments leave me hopeful. I begin to imagine a world where science, art, and technology nurture connection not only through data and art making, but through presence, deep listening, shared making, and walking alongside one another. I am left feeling deep gratitude for the warmth, wisdom, and generosity sea community has offered in welcoming me into their daily lives.

Como visitante por primera vez en Bali, la isla me recibe como un sueño. Al caminar por su costa, comienzo a ver reflejos de mi propia comunidad en Far Rockaway, Nueva York: historias de resiliencia, reverencia por el océano y un sueño compartido de pertenencia y significado.

Llegué a Les Village con la esperanza de entender cómo la comunidad está preservando su ecología y cómo el cambio climático ha cambiado su relación con el mar y la tierra.

Pero al caminar junto a sus habitantes, escuchando sus relatos sobre plantas, espíritus y esperanza, me siento atraída por los hilos espirituales que los conectan profundamente con los ritmos de su territorio.

Los rituales cotidianos provocan risas sobre espíritus buenos y malos, abriendo suavemente un espacio para que nuestras prácticas creativas se entrelacen.

Estos momentos compartidos me dejan con esperanza. Comienzo a imaginar un mundo donde la ciencia, el arte y la tecnología augmentan nuestra conexión, no solo a través de datos y creación artística, sino también por estar presente, escuchando profundamente, co-creando, al caminar juntos.

Me invade una profunda gratitud por la calidez, la sabiduríay la generosidad con la que la comunidad me ha acogido en su vida cotidiana.

SOMETIMES THE BEST WAYS ARE THE OLD WAYS

GEOSTATIONARY SATELLITES AS A PORTABLE EMERGENCY FALLBACK

juul

Project overview

The aim of this project was to create a low cost and compact system that can receive news and weather reports from satellites when both internet and power is down. As access to internet is increasingly becoming available and affordable fewer and fewer people use traditional satellite TV and the receivers usually need stably mounted dishes installed and aimed by professional technicians as well as a TV or HDMI monitor to view the video/data. During power and/or internet outages there may be no way to get access to e.g. warnings about approaching bad weather or critical news coverage.

The now-defunct Othernet project developed a special receiver that is theoretically capable of receiving some Ku band satellite signals without a dish or a very minimal dish. My idea was to attempt to combine this with a compact satellite receiver box running Linux to create a small low power system that could be stored away, carried on trips, and set up anywhere with a clear view of the sky to instantly access critical information to be viewed on a smartphone or laptop.

Project progress

I used a so-called Enigma box. This is a type of third party satellite receiver set-top box produced mostly in China and sold widely in Russia, the middle east and India/Pakistan that runs one of several open source linux distros. The one thing they have in common is that they use a GUI called Enigma 2. I used ssh root access to disable the Enigma GUI, then install command-line utilities to directly control the built-in satellite tuner/modulator (which is compatible with DVB-S2 signals). I used lyngsat.com to look up a local TV satellite that has good coverage over our current area and contains some FTA channels (Free To Air, meaning unencrypted). I then hooked up an LNB (see, "What is an LNB" below) to the satellite receiver box and pointed it at the point in the sky where the satellite is located using a compass and guesstimate of the inclination. I attempted to receive without a satellite dish which generally should not work. I first used a normal "Universal" type LNB but then moved to a "Bullseye" BE01 LNB (1) which is a special LNB developed by the now-defunct Othernet project (previously the Outernet project). This LNB has a very high signal stability that should be capable of receiving some Ku band signals without a dish under ideal conditions. I was still not able to receive a signal.

Next steps

I need to acquire or manufacture a small portabe satellite dish or something parabolic. A wok may be sufficient though perhaps not since the high frequency satellite signals are more susceptible to imperfections in the dish shape. A non-metallic parabolic dish could work as I could potentially coat it in e.g. aluminum foil. It might even be possible to 3D print such a structure. Let me know if you have ideas or want to collaborate on this :)

What is an LNB?

LNB is the "receive head" that you see mounted at the focal point of normal TV satellite dishes. LNB stands for low-noise block. It's a combination antenna for the ~10-13 GHz Ku band as well as an LNA (low-noise amplifier) and down-mixer that down-converts the signal to ~1-2 GHz before sending it to the receiver over a coaxial cable. The down-conversion is done immediately after the receive antenna because frequencies that high don't travel well over any kind of affordable cable. The LNB receives DC power as well as basic control signals over the same coax it uses to transmit the received signal back to the set-top box.

(1) Othernet LNB teardown: https://www.pabr.org/radio/otherlnb/otherlnb.en.html'

WHERE ROOSTERS &GAMELAN DANCE TOGETHER

Dinoj M

This track was born from a quiet afternoon in Les Village, Bali. I visited the Amisewaka Community Center and came across a student exhibition. The kids were playing gamelan.., focused, joyful, and completely in the moment. The sound had a kind of magic to it.

Not far from there, I heard stories about the rooster fight game. I recorded the roosters too.. their sharp, restless calls, full of rhythm and tension. Later, I kept wondering: what if those two moments lived in the same space? What if the music played in the background while the roosters moved?

That thought became this track. A mix of play and chaos, tradition and imagination, just like that day.

DYE REFLECTIONS

Olivia Cueva

After lunch on Thursday I invited DinaCon participants, kitchen staff, and our local Sea Communities translators to help me prep the local plants I had collected for natural dyes we would later use in our bio plastics workshop. All the plants we used are grown locally at Sea Communities and in the surrounding village, easily harvested as you walk around. I was particularly interested in working with Pandan, a bright green plant used in daily ceremonies that produces a bright green color. The Spirulina grown in the community garden produces a lovely teal; Butterfly Pea flower grown around the recycling center becomes a light blue, and with the addition of lemon turns electric purple! Turmeric harvested from the garden produces a concentrated orange yellow, while Marigolds from the market a much lighter shade of yellow. But during this color extracting workshop, we were missing the color red. Soon a variety of red plants were collected from the courtyard and placed on our table to try. A bright pink Hibiscus flower turned black before it became a deep dark red dye. The dark red ceremonial plant, Andong Leaf, became a pale green before I added lemon and we all instantly saw the color disappear! A beautiful dark purple plant was collected and became a neon pink dye. It was a lovely colorful community experiment that led us into a bioplastic workshop where we got to see how the colors looked when mixed with agar agar.

A quick guide to how to extract dyes from local plants:

Flowers and fresh leaves: break up leaves/petals into smaller pieces and place in a glass cup. Pour boiling water over them. Let it sit until the color extracts (usually 5-30 mins – the longer the better). Remove the flowers before using.

For green leaves, stems, and roots: blend with water in a blender and filter through a fine kitchen strainer to get a pure color.

For Spirulina (and other heat sensitive colours): grind up into a fine powder. With a coffee filter and funnel, pour cold water through the filter to extract a blue color. For faster making which produces a more green color, just mix powder into a glass of cold water.

LOOKIN' 4 LUV?

Venomous, anti-social Stargazer fish looking to spark a special connection

TURN ONS:
- hiding on the ocean floor
- astronomy

TURN OFFS:
- Toxic people (venom ok, though!)
- climate-change deniers

2025.dinacon.org/jomblo

RUMORS, OVERHEARD, & GOSSIP AT DINACON

Some are saying that there's a bad boy of dinacon this year whose been up to no good keep your eyes open for him

Overheard at dinner that certain someone cannot stop licking weaver ant butts, they just won't stop they crave the butts!!

While walking through grounds at night the moths were whispering about unionizing and demanding payment for their photos

Word on the street is soon the ocean will be so low tide you can walk right out to the coral and give them a kiss

Turns out the crackling you hear in the ocean is a really rad nudibranch noise band

A little spider told me that if you compliment Garri he'll do a funny dance

The big gecko in HQ told me that Mayowa is actually attending diNOcon virtually instead of doing meetings

Someone said water shoes are for posers

WORKSHOP ROUNDUP

An incredible first week of dinacon with workshops galore! Explore everything we got up to (or at least everything we were able to keep track of).

Salt farming: Multiple groups learned the traditional salt farming methods of Les that utilize dirt filtration over the course of one week to make sea salt.

Canang sari: Bali has offerings placed out three times a day called canang sari, small boxes made of leaves filled with flowers to represent the directions and the gods.

Barkcloth: Many got to learn the traditional methods of utilizing mulberry bark to create paper through pounding the bark into shape with Arya

3D printing: Eka led an intro to 3D printing workshop where folks got to make their own small prints.

Sensors intro: Seamus introduced us to his fleet of sensors designed to learn more about the world around us.

Coral reef substrate: Pak Eka taught us how the coral reef substrate is made

and the holds designed to keep the baby coral in place on the coral tables underwater.

Natural dyes: Olivia led people in a fun journey of colours by showing different methods of finding natural dyes and created a fleet of different ones to use in bioplastics.

Bioplastic: Camila and Olivia led us through making bioplastic a with inclusions that were a beautiful rainbow of colours.

PET recycling: Eka taught folks how to recycle PET plastic that is most common in bottles.

Soldering: Lee showed many people how to solder in a workshop that really grew a life of its own and continued for hours as students taught others.
An incredible first week of dinacon with workshops galore! Explore everything we got up to (or at least everything we were able to keep track of).

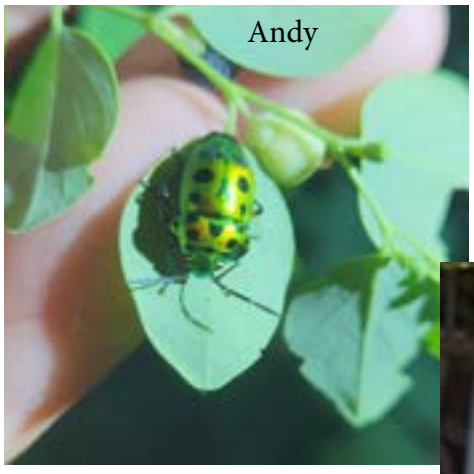
BUG OF THE DAY WINNERS

BUGS OF THE WEEK
HONORABLE MENTIONS

Seamus

Tully

Arya


Andy

Parkview

Sid

Seamus

Paula

Seamus

Jay

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